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EXAMINER	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/563,664	LEE ET AL.	
	Examiner	Art Unit	
	JOHN F. MORTELL	2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 May 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *10-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *10-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Status of the Application

1. Claims 10-30 are pending in the application. The applicants have added claims 29 and 30. The applicants previously cancelled claims 1-9.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 102

3. Claim 10-13, 15, 16, 19, 20, and 28 are rejected under 35 U.S.C. 102(e) as being anticipated by Tanaka et al. (US PG Pub. 2003/0058337 A1).

Regarding claim 10, Tanaka discloses:

> a device for driving assistance for parallel parking a vehicle ([0003], [0045]), comprising:
>
> an output unit for outputting parallel parking driving instructions to a driver ([0009], [0036]; FIG. 5: 5);
>
> wherein the parallel parking driving instructions provide a driver with a driving zone situated between two trajectories which are calculated in such a way that the vehicle can be moved within the driving zone ([0054]; FIG. 1: R).

Regarding claim 11, Tanaka discloses a device wherein the output unit includes a display configured to display surroundings of the vehicle and to display the driving zone with respect to the displayed surroundings of the vehicle. ([0042], [0053], [0057], [0059], [0060], [0061]; FIG. 1: 12, 13, 14, R, S; FIG. 2: 12, 13, 14, S)

Regarding claim 12, Tanaka discloses a device further comprising a detection unit

configured to detect a set steering angle and to determine an anticipated travel path at an unchanged steering angle, the anticipated travel path being displayed at least partially with respect to the surroundings of the vehicle. ([0039], [0054], [0065]; FIG. 1: 7A; FIG. 5: 2, 4)

Regarding claim 13, Tanaka discloses a device wherein the trajectories delimiting the driving zone require at least one full angle of a steering wheel for following the appropriate trajectory. The language, "at least one full angle of a steering wheel" does not specify the magnitude of the angle, and therefore, any angle that varies from a straight trajectory constitutes "at least one full angle of a steering wheel." As shown in the citations for claims 10 and 12 above, Tanaka teaches a device that guides a vehicle in parking when the steering wheel is turned at an angle from a straight trajectory of the vehicle. (See the citations for claims 10 and 12, especially FIGS. 1 and 2)

Regarding claim 15, Tanaka discloses a device further comprising a computer unit configured to determine a parking space suitable for the vehicle. ([0045]; FIG. 2: P)

Regarding claim 16, Tanaka discloses a device wherein an indication for changing a turning direction of a steering wheel is output. ([0053]; [0054], [0059]; FIG. 1: R, S, 7B)

Regarding claim 19, Tanaka discloses a device wherein:

> the output unit includes a display configured to display surroundings of the vehicle and to display the driving zone with respect to the displayed surroundings of the vehicle (see the citations for claims 10 and 11),
>
> and wherein the trajectories delimiting the driving zone require at least one full angle of a steering wheel for following the appropriate trajectory (see the citations for claim 13).

Regarding claim 20, Tanaka discloses a device further comprising a detection unit configured to detect a set steering angle and to determine an anticipated travel path at an

unchanged steering angle, the anticipated travel path being displayed at least partially with respect to the surroundings of the vehicle. (See the citations for claim 12.)

Regarding claim 28, Tanaka discloses:

> a driving aid device for parking a vehicle, comprising:
>
> an output unit for outputting driving instructions to a driver, wherein the driving instructions indicate to the driver a driving range between two trajectories which designate two different determined routes, the routes being determined so that the vehicle is moveable to park it within the driving range. (See the citations for claim 10.)

Claim Rejections - 35 USC § 103

4. Claims 14, 21, 23, 24, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka in view of Janssen (US 6,919,917 B1).

Regarding claim 14, Tanaka does not explicitly disclose a device further comprising a measuring device configured to measure a distance of the vehicle to obstacles in the surroundings of the vehicle.

Janssen, in the same field of endeavor, teaches a device for monitoring the environment of a vehicle being parked comprising a measuring device configured to measure a distance of the vehicle to obstacles in the surroundings of the vehicle for the benefit of providing an object-detection unit which processes both data from object-detection sensors as well as video images so that it is possible at any time for the driver, in a simple fashion, to carry out monitoring and driving correction. (col. 1, lines 38-49; col. 2, lines 29-32; col. 6, lines 16-20; FIG. 1: 9a, 9b, 9c, 9d, 9e; FIG. 6: 9c, 9d, 9e)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the device for monitoring the environment of a vehicle being parked comprising a

measuring device configured to measure a distance of the vehicle to obstacles in the surroundings of the vehicle, as taught by Janssen, with the device for driving assistance disclosed by Tanaka because it would enable the device to provide an object-detection unit which processes both data from object-detection sensors as well as video images so that it is possible at any time for the driver, in a simple fashion, to carry out monitoring and driving correction.

Regarding claim 21, Tanaka discloses a device further comprising:

> a computer unit configured to determine a parking space suitable for the vehicle (see the citations for claim 15);
>
> wherein an indication for changing a turning direction of a steering wheel is output (see the citations for claims 15 and 16).

Tanaka does not disclose a device further comprising a measuring device configured to measure a distance of the vehicle to obstacles in the surroundings of the vehicle.

Janssen, in the same field of endeavor, teaches a device for monitoring the environment of a vehicle being parked comprising a measuring device configured to measure a distance of the vehicle to obstacles in the surroundings of the vehicle for the benefit of providing an object-detection unit which processes both data from object-detection sensors as well as video images so that it is possible at any time for the driver, in a simple fashion, to carry out monitoring and driving correction. (See the citations for claim 14.)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the device for monitoring the environment of a vehicle being parked comprising a measuring device configured to measure a distance of the vehicle to obstacles in the surroundings of the vehicle, as taught by Janssen, with the device for driving assistance disclosed by Tanaka because it would enable the device to provide an object-detection unit which

processes both data from object-detection sensors as well as video images so that it is possible at any time for the driver, in a simple fashion, to carry out monitoring and driving correction.

Regarding claim 23, Tanaka further discloses a speaker to output an acoustic alert signal when leaving the driving zone. (See the citations for claim 18.)

Regarding claim 24, Tanaka discloses a device further comprising a computer unit configured to determine a parking space suitable for the vehicle, wherein an indication for changing a turning direction of a steering wheel is output (see the citations for claims 15 and 16.), but Tanaka does not disclose a device further comprising a measuring device configured to measure a distance of the vehicle to obstacles in the surroundings of the vehicle.

Janssen, in the same field of endeavor, teaches a device for monitoring the environment of a vehicle being parked comprising a measuring device configured to measure a distance of the vehicle to obstacles in the surroundings of the vehicle for the benefit of providing an object-detection unit which processes both data from object-detection sensors as well as video images so that it is possible at any time for the driver, in a simple fashion, to carry out monitoring and driving correction. (See the citations for claim 14.)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the device for monitoring the environment of a vehicle being parked comprising a measuring device configured to measure a distance of the vehicle to obstacles in the surroundings of the vehicle, as taught by Janssen, with the device for driving assistance disclosed by Tanaka because it would enable the device to provide an object-detection unit which processes both data from object-detection sensors as well as video images so that it is possible at any time for the driver, in a simple fashion, to carry out monitoring and driving correction.

Regarding claim 27, Tanaka discloses a device further comprising a detection unit configured to detect a set steering angle and to determine an anticipated travel path at an unchanged steering angle, the anticipated travel path being displayed at least partially with respect to the surroundings of the vehicle. (See the citations for claims 10 and 11.)

5. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka in view of Luckscheiter et al. (US 6,226,592 B1).

Regarding claim 17, Tanaka does not disclose a powered unit configured to impact a steering wheel of the vehicle for outputting a haptic effect via the steering wheel when leaving the driving zone.

Luckscheiter, in the same field of endeavor, teaches a system for providing the operator of a motor vehicle with feedback regarding lane boundaries comprising a powered unit configured to impact a steering wheel of the vehicle for outputting a haptic effect via the steering wheel when leaving the driving zone for the benefit of assisting a driver of a motor vehicle to travel within a designated driving lane, thereby helping him curb otherwise risky behavior. (col. 1, lines 37-40; col. 2, lines 38-45, 57-63)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the system for providing the operator of a motor vehicle with feedback regarding lane boundaries comprising a powered unit configured to impact a steering wheel of the vehicle for outputting a haptic effect via the steering wheel when leaving the driving zone, as taught by Luckscheiter, with the device for driving assistance disclosed by Tanaka because it would enable the device to assist a driver of a motor vehicle to travel within a designated driving lane, thereby

helping him curb otherwise risky behavior.

6. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka in view of Okamoto (US PG Pub. 2003/0045973 A1).

Regarding claim 18, Tanaka does not disclose a device further comprising a speaker to output an acoustic alert signal when leaving the driving zone.

Okamoto, in the same field of endeavor, teaches a parking support unit for assisting a steering operation of a motor vehicle during parallel parking, wherein the unit comprises a speaker, so that when the actual vehicle route image is deviates from the predicted vehicle route image, a phonic warning is given to a driver of the vehicle for the benefit that the driver can operate the steering wheel to bring the actual vehicle route to coincide with the predicted vehicle route. ([0002], [0043], [0052], [0072]; FIG. 2: 8)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the parking support unit for assisting a steering operation of a motor vehicle during parallel parking, wherein the unit comprises a speaker, so that when the actual vehicle route image is deviates from the predicted vehicle route image, a phonic warning is given to a driver of the vehicle, as taught by Okamoto, with the device disclosed by Tanaka because it would enable the device to alert the driver to operate the steering wheel to bring the actual vehicle route to coincide with the predicted vehicle route.

7. Claims 22 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka in view of Janssen and further in view of Luckscheiter.

Regarding claim 22, the above combination of Tanaka and Janssen teaches the device for driving assistance as recited in claim 21 but does not teach a device further comprising a powered unit configured to impact a steering wheel of the vehicle for outputting a haptic effect via the steering wheel when leaving the driving zone.

Luckscheiter, in the same field of endeavor, teaches a system for providing the operator of a motor vehicle with feedback regarding lane boundaries comprising a powered unit configured to impact a steering wheel of the vehicle for outputting a haptic effect via the steering wheel when leaving the driving zone for the benefit of assisting a driver of a motor vehicle to travel within a designated driving lane, thereby helping him curb otherwise risky behavior. (See the citations for claim 17.)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the system for providing the operator of a motor vehicle with feedback regarding lane boundaries comprising a powered unit configured to impact a steering wheel of the vehicle for outputting a haptic effect via the steering wheel when leaving the driving zone, as taught by Luckscheiter, with the device for driving assistance disclosed by Tanaka because it would enable the device to assist a driver of a motor vehicle to travel within a designated driving lane, thereby helping him curb otherwise risky behavior.

Regarding claim 25, the above combination of Tanaka and Janssen teaches the device for driving assistance as recited in claim 24 but does not teach a device further comprising a powered unit configured to impact a steering wheel of the vehicle for outputting a haptic effect via the steering wheel when leaving the driving zone.

Luckscheiter, in the same field of endeavor, teaches a system for providing the operator

of a motor vehicle with feedback regarding lane boundaries comprising a powered unit configured to impact a steering wheel of the vehicle for outputting a haptic effect via the steering wheel when leaving the driving zone for the benefit of assisting a driver of a motor vehicle to travel within a designated driving lane, thereby helping him curb otherwise risky behavior. (See the citations for claim 17.)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the system for providing the operator of a motor vehicle with feedback regarding lane boundaries comprising a powered unit configured to impact a steering wheel of the vehicle for outputting a haptic effect via the steering wheel when leaving the driving zone, as taught by Luckscheiter, with the device for driving assistance disclosed by Tanaka because it would enable the device to assist a driver of a motor vehicle to travel within a designated driving lane, thereby helping him curb otherwise risky behavior.

8. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka in view of Janssen and further in view of Okamoto.

Regarding claim 26, the above combination of Tanaka and Janssen teaches the device for driving assistance as recited in claim 24 but does not teach a device further comprising a speaker to output an acoustic alert signal when leaving the driving zone.

Okamoto, in the same field of endeavor, teaches a parking support unit for assisting a steering operation of a motor vehicle during parallel parking, wherein the unit comprises a speaker, so that when the actual vehicle route image is deviates from the predicted vehicle route image, a phonic warning is given to a driver of the vehicle for the benefit that the driver can

operate the steering wheel to bring the actual vehicle route to coincide with the predicted vehicle route. (See the citations for claim 18.)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the parking support unit for assisting a steering operation of a motor vehicle during parallel parking, wherein the unit comprises a speaker, so that when the actual vehicle route image is deviates from the predicted vehicle route image, a phonic warning is given to a driver of the vehicle, as taught by Okamoto, with the device disclosed by Tanaka because it would enable the device to alert the driver to operate the steering wheel to bring the actual vehicle route to coincide with the predicted vehicle route.

9. Claims 29 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka in view of Janssen, further in view of Luckscheiter, and further in view of Okamoto.

Regarding claim 29, Tanaka discloses:

> a driving aid device ([0003], [0045]) further comprising:
>
> a detection unit configured to detect a set steering angle and to determine an anticipated travel path at an unchanged steering angle, the anticipated travel path being displayed at least partially with respect to the surroundings of the vehicle ([0039], [0054], [0065]; FIG. 1: 7A; FIG. 5: 2, 4);
>
> a computer unit configured to determine a parking space suitable for the vehicle ([0045]; FIG. 2: P);
>
> wherein the output unit includes a display configured to display surroundings of the vehicle and to display the driving zone with respect to the displayed surroundings of the vehicle ([0009], [0036], [0042], [0053], [0054], [0057], [0059], [0060], [0061]; FIG. 1: 12, 13, 14, R, S; FIG. 2: 12, 13, 14, S; FIG. 5: 5),
>
> wherein the trajectories delimiting the driving zone require at least one full

> angle of a steering wheel for following the appropriate trajectory (See the rejection of claim 13 and the citations for that rejection), and
>
> wherein an indication for changing a turning direction of a steering wheel is output ([0053]; [0054], [0059]; FIG. 1: R, S, 7B).

Tanaka does not disclose a device further comprising:

> a measuring device configured to measure a distance of the vehicle to obstacles in the surroundings of the vehicle;
>
> a powered unit configured to impact a steering wheel of the vehicle for outputting a haptic effect via the steering wheel when leaving the driving zone; and
>
> a speaker to output an acoustic alert signal when leaving the driving zone.

Janssen, in the same field of endeavor, teaches a device for monitoring the environment of a vehicle being parked comprising a measuring device configured to measure a distance of the vehicle to obstacles in the surroundings of the vehicle for the benefit of providing an object-detection unit which processes both data from object-detection sensors as well as video images so that it is possible at any time for the driver, in a simple fashion, to carry out monitoring and driving correction. (col. 1, lines 38-49; col. 2, lines 29-32; col. 6, lines 16-20; FIG. 1: 9a, 9b, 9c, 9d, 9e; FIG. 6: 9c, 9d, 9e)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the device for monitoring the environment of a vehicle being parked comprising a measuring device configured to measure a distance of the vehicle to obstacles in the surroundings of the vehicle, as taught by Janssen, with the device disclosed by Tanaka because it would enable the device to provide an object-detection unit which processes both data from object-detection sensors as well as video images so that it is possible at any time for the driver, in a simple fashion, to carry out monitoring and driving correction.

The above combination of Tanaka and Janssen does not disclose a device further comprising:

> a powered unit configured to impact a steering wheel of the vehicle for outputting a haptic effect via the steering wheel when leaving the driving zone; and
>
> a speaker to output an acoustic alert signal when leaving the driving zone.

Luckscheiter, in the same field of endeavor, teaches a system for providing the operator of a motor vehicle with feedback regarding lane boundaries comprising a powered unit configured to impact a steering wheel of the vehicle for outputting a haptic effect via the steering wheel when leaving the driving zone for the benefit of assisting a driver of a motor vehicle to travel within a designated driving lane, thereby helping him curb otherwise risky behavior. (col. 1, lines 37-40; col. 2, lines 38-45, 57-63)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the system for providing the operator of a motor vehicle with feedback regarding lane boundaries comprising a powered unit configured to impact a steering wheel of the vehicle for outputting a haptic effect via the steering wheel when leaving the driving zone, as taught by Luckscheiter, with the device disclosed by the above combination because it would enable the device to assist a driver of a motor vehicle to travel within a designated driving lane, thereby helping him curb otherwise risky behavior.

The above combination of Tanaka, Janssen, and Luckscheiter does not disclose:

> a speaker to output an acoustic alert signal when leaving the driving zone.

Okamoto, in the same field of endeavor, teaches a parking support unit for assisting a steering operation of a motor vehicle during parallel parking, wherein the unit comprises a

speaker, so that when the actual vehicle route image is deviates from the predicted vehicle route image, a phonic warning is given to a driver of the vehicle for the benefit that the driver can operate the steering wheel to bring the actual vehicle route to coincide with the predicted vehicle route. ([0002], [0043], [0052], [0072]; FIG. 2: 8)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the parking support unit for assisting a steering operation of a motor vehicle during parallel parking, wherein the unit comprises a speaker, so that when the actual vehicle route image is deviates from the predicted vehicle route image, a phonic warning is given to a driver of the vehicle, as taught by Okamoto, with the device disclosed by the above combination because it would enable the device to alert the driver to operate the steering wheel to bring the actual vehicle route to coincide with the predicted vehicle route.

Regarding claim 30, Tanaka discloses:

> a device for driving assistance ([0003], [0045]) further comprising:
>
> a detection unit configured to detect a set steering angle and to determine an anticipated travel path at an unchanged steering angle, the anticipated travel path being displayed at least partially with respect to the surroundings of the vehicle ([0039], [0054], [0065]; FIG. 1: 7A; FIG. 5: 2, 4);
>
> a computer unit configured to determine a parking space suitable for the vehicle ([0045]; FIG. 2: P);
>
> wherein the output unit includes a display configured to display surroundings of the vehicle and to display the driving zone with respect to the displayed surroundings of the vehicle ([0009], [0036], [0042], [0053], [0054], [0057], [0059], [0060], [0061]; FIG. 1: 12, 13, 14, R, S; FIG. 2: 12, 13, 14, S; FIG. 5: 5),
>
> wherein the trajectories delimiting the driving zone require at least one full angle of a steering wheel for following the appropriate trajectory (See the rejection of claim 13 and the citations for that rejection), and

> wherein an indication for changing a turning direction of a steering wheel is output ([0053]; [0054], [0059]; FIG. 1: R, S, 7B).

Tanaka does not disclose:

> a measuring device configured to measure a distance of the vehicle to obstacles in the surroundings of the vehicle;
>
> a powered unit configured to impact a steering wheel of the vehicle for outputting a haptic effect via the steering wheel when leaving the driving zone; and
>
> a speaker to output an acoustic alert signal when leaving the driving zone.

Janssen, in the same field of endeavor, teaches a device for monitoring the environment of a vehicle being parked comprising a measuring device configured to measure a distance of the vehicle to obstacles in the surroundings of the vehicle for the benefit of providing an object-detection unit which processes both data from object-detection sensors as well as video images so that it is possible at any time for the driver, in a simple fashion, to carry out monitoring and driving correction. (col. 1, lines 38-49; col. 2, lines 29-32; col. 6, lines 16-20; FIG. 1: 9a, 9b, 9c, 9d, 9e; FIG. 6: 9c, 9d, 9e)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the device for monitoring the environment of a vehicle being parked comprising a measuring device configured to measure a distance of the vehicle to obstacles in the surroundings of the vehicle, as taught by Janssen, with the device disclosed by Tanaka because it would enable the device to provide an object-detection unit which processes both data from object-detection sensors as well as video images so that it is possible at any time for the driver, in a simple fashion, to carry out monitoring and driving correction.

The above combination of Tanaka and Janssen does not disclose:

> a powered unit configured to impact a steering wheel of the vehicle for outputting a haptic effect via the steering wheel when leaving the driving zone; and
>
> a speaker to output an acoustic alert signal when leaving the driving zone.

Luckscheiter, in the same field of endeavor, teaches a system for providing the operator of a motor vehicle with feedback regarding lane boundaries comprising a powered unit configured to impact a steering wheel of the vehicle for outputting a haptic effect via the steering wheel when leaving the driving zone for the benefit of assisting a driver of a motor vehicle to travel within a designated driving lane, thereby helping him curb otherwise risky behavior. (col. 1, lines 37-40; col. 2, lines 38-45, 57-63)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the system for providing the operator of a motor vehicle with feedback regarding lane boundaries comprising a powered unit configured to impact a steering wheel of the vehicle for outputting a haptic effect via the steering wheel when leaving the driving zone, as taught by Luckscheiter, with the device disclosed by the above combination because it would enable the device to assist a driver of a motor vehicle to travel within a designated driving lane, thereby helping him curb otherwise risky behavior.

The above combination of Tanaka, Janssen, and Luckscheiter does not disclose:

> a speaker to output an acoustic alert signal when leaving the driving zone.

Okamoto, in the same field of endeavor, teaches a parking support unit for assisting a steering operation of a motor vehicle during parallel parking, wherein the unit comprises a speaker, so that when the actual vehicle route image is deviates from the predicted vehicle route

image, a phonic warning is given to a driver of the vehicle for the benefit that the driver can operate the steering wheel to bring the actual vehicle route to coincide with the predicted vehicle route. ([0002], [0043], [0052], [0072]; FIG. 2: 8)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the parking support unit for assisting a steering operation of a motor vehicle during parallel parking, wherein the unit comprises a speaker, so that when the actual vehicle route image is deviates from the predicted vehicle route image, a phonic warning is given to a driver of the vehicle, as taught by Okamoto, with the device disclosed by the above combination because it would enable the device to alert the driver to operate the steering wheel to bring the actual vehicle route to coincide with the predicted vehicle route.

Response to Arguments

10. Applicant's arguments filed May 8, 2009, have been fully considered but they are not persuasive.

Rejections under 35 U.S.C. § 102(e)

11. The applicants traverse the rejection of claims 10-13, 15, 16, 19, 20, and 28 under 35 U.S.C. § 102(e) as being anticipated by Tanaka.

Against the rejection of claim 10, the applicants argue that Tanaka does not identically disclose (nor even suggest) a driving zone but instead, merely refers to "an anticipated course of the one's own vehicle." The applicants argue that trace R of Fig. 1, on which Office Action relies, is referred to by the Tanaka reference as an "anticipated path." The applicants argue that

even if the Tanaka reference did refer to a driver's anticipated path, nothing in the Tanaka reference identically discloses (nor even suggests) a driving zone -- outside of which the vehicle may collide, as provided for in the context of the presently claimed subject matter.

Regarding the argument against the rejection of claim 10, claim 10 recites, in relevant part, "a device for driving assistance for parallel parking a vehicle, comprising: … wherein the parallel parking driving instructions provide a driver with a driving zone situated between two trajectories which are calculated in such a way that the vehicle can be moved within the driving zone." As cited in the Office Action, Tanaka discloses a display that depicts the anticipated course R of the vehicle. The anticipated course enables the driver to adjust the steering of the vehicle by comparison with a parking path S, which is depicted on the same display. ([0053]) Further explaining this aspect of the invention, Tanaka discloses that the system calculates the parking path S from the current position of the vehicle to the parking target point. ([0057]) Tanaka discloses that the calculated parking path S makes it possible for the driver "to grasp the relationship between relative positions to obstacles such as the forward parking vehicle 12, the backward parking vehicle 13, and the road shoulder edge 14." ([0057]) Tanaka discloses that the system calculates parking path S so as to avoid a collision with an obstacle. ([0058])

As depicted in FIG. 1, the parking path S includes left and right vehicle trajectory boundaries. The boundaries of parking path S define a zone of vehicle travel. As long as the vehicle travels within the boundaries of paring path S, the vehicle will avoid colliding with an obstacle.

The foregoing shows that Tanaka discloses a system that provides a parking path that defines a zone situated between two boundaries calculated in such a way that the vehicle can be

moved within the zone, as recited by claim 10. Because Tanaka discloses all the limitations recited in claim 10, the rejection of claim 10 is not withdrawn. No basis existing for the withdrawal of the rejection of claim 10, no basis exists for the withdrawal of the rejection of claims 11-13, 15, 16, 19, and 20, which depend from claim 10.

Against the rejection of claim 28, the applicants argue that Tanaka does not identically disclose (nor suggest) a driving range, as provided for in the context of the presently claimed subject matter, since at best, the Tanaka reference merely refers to an anticipated path of the driver - and not a driving range.

Regarding this argument against the rejection of claim 28, Tanaka discloses a display that depicts the anticipated course R of the vehicle, as cited in the Office Action. The anticipated course enables the driver to adjust the steering of his vehicle by comparison with a parking path S, which is depicted on the same display. ([0053]) Further explaining this aspect of the invention, Tanaka discloses that the system calculates the parking path S from the current position of the vehicle to the parking target point. ([0057]) Tanaka discloses that the calculated parking path S makes it possible for the driver "to grasp the relationship between relative positions to obstacles such as the forward parking vehicle 12, the backward parking vehicle 13, and the road shoulder edge 14." ([0057]) Tanaka discloses that the system calculates parking path S so as to avoid a collision with an obstacle. ([0058])

As depicted in FIG. 1, the parking path S includes left and right vehicle trajectory boundaries. The left and right boundaries of the parking path S define a driving range. As long as the vehicle travels within the boundaries of parking path S, the vehicle will avoid colliding with an obstacle.

Against the rejection of claim 28, the applicants further argue that Tanaka does not identically disclose (nor suggest) the claim feature of two different determined routes.

Regarding this argument against the rejection of claim 28, Tanaka discloses that the system calculates a parking path S from the current position of the vehicle to the parking target point and depicts the path S on a display. ([0057]) Tanaka discloses that the calculated parking path S makes it possible for the driver "to grasp the relationship between relative positions to obstacles such as the forward parking vehicle 12, the backward parking vehicle 13, and the road shoulder edge 14." ([0057]) Tanaka discloses that the system calculates parking path S so as to avoid a collision with an obstacle. ([0058])

As depicted in FIG. 1, parking path S includes left and right vehicle trajectory boundaries. The left and right boundaries of parking path S constitute two different determined routes, one on the left and one on the right. The left boundary of parking path S defines the leftmost route of vehicle travel, and the right boundary of parking path S defines the rightmost route of vehicle travel. As long as the vehicle moves within the boundaries of the left and right routes of parking path S, the vehicle will avoid colliding with an obstacle.

The foregoing shows that Tanaka discloses a system that outputs driving instructions to a driver, in the form of the display of parking path S, wherein the driving instructions indicate a driving range between two trajectories which designate two different determined routes, in the form of the left and right boundaries of parking path S, so that the vehicle is moveable to park within the driving range by moving within the boundaries of paring path S, as recited by claim 28.

Against the rejection of both claim 10 and claim 28, the applicants argue that the Office

may not ignore the reasonable interpretation of terms in the specification, as provided for in the context of the claimed subject matter -- and as would be understood by a person having ordinary skill in the art based on the specification.

Regarding the argument against the rejection of claims 10 and 28, the applicants do not specify how the Office Action has ignored the reasonable interpretation of terms in the specification in the context of the claimed subject matter, so no specific response to this argument is possible. As both the above rebuttal of the applicants' arguments and the above rejection of the claims show, however, the cited references disclose, teach, and suggest all the limitations recited in the claims, so no basis exists for allowing the claims.

For all the foregoing reasons, the arguments against the rejection of claims 10-13, 15, 16, 19, 20, and 28 are not persuasive, and the rejection of claims 10-13, 15, 16, 19, 20, and 28 is not withdrawn.

Rejections under 35 U.S.C. § 103(a)

12. The applicants traverse the rejection of claims 14, 21, 23, 24, and 27 under U.S.C. 103(a) as unpatentable over the combination of Tanaka in view of Janssen. The applicants traverse the rejection of claim 17 under 35 U.S.C. § 103(a) as being unpatentable over Tanaka in view of Luckscheiter. The applicants traverse the rejection of claim 18 under 35 U.S.C. § 103(a) as being unpatentable over Tanaka in view of Okamoto. The applicants traverse the rejection of claims 22 and 25 under 35 U.S.C. § 103(a) as being unpatentable over Tanaka in view of Janssen and further in view of Luckscheiter.

Against the rejection of claims 14, 21, 23, 24, 26, and 27, the applicants argue that claims

14, 21, 23, 24, 26, and 27 ultimately depend from claim 10 and are therefore allowable for essentially the same reasons as claim 10, since the secondary reference does not cure -- and is not asserted to cure -- the critical deficiencies of the primary reference - which is not prior art as to the present application.

Regarding the argument against the rejection of claims 14, 21, 23, 24, 26, and 27, the rebuttal of the arguments against the rejection of claim 10 is stated above, and that rebuttal is incorporated here by reference as the rebuttal of this argument against the rejection of claims 14, 21, 23, 24, 26, and 27.

Against the rejection of claim 17, the applicants argue that claim 17 depends from claim 10 and is therefore allowable for essentially the same reasons as claim 10, since the secondary reference does not cure -- and is not asserted to cure -- the critical deficiencies of the primary reference- which is not prior art as to the present application.

Regarding the argument against the rejection of claim 17, the rebuttal of the arguments against the rejection of claim 10 is stated above, and that rebuttal is incorporated here by reference as the rebuttal of this argument against the rejection of claim 17.

Against the rejection of claim 18, the applicants argue that claim 18 depends from claim 10 and is therefore allowable for essentially the same reasons as claim 10, since the secondary reference does not cure -- and is not asserted to cure -- the critical deficiencies of the primary reference- which is not prior art as to the present application.

Regarding the argument against the rejection of claim 18, the rebuttal of the arguments against the rejection of claim 10 is stated above, and that rebuttal is incorporated here by reference as the rebuttal of this argument against the rejection of claim 17.

Against the rejection of claims 22 and 25, the applicants argue that claims 22 and 25 depend from claim 10 and are therefore allowable for essentially the same reasons as claim 10, as presented, since the secondary references do not cure – and are not asserted to cure -- the critical deficiencies of the primary reference- which is not prior art as to the present application.

Regarding the argument against the rejection of claims 22 and 25, the rebuttal of the arguments against the rejection of claim 10 is stated above, and that rebuttal is incorporated here by reference as the rebuttal of this argument against the rejection of claims 22 and 25.

Against all the rejections based on obviousness, the applicants traverse any Official Notice and request that the Examiner provide specific evidence to establish those assertions and/or contentions that may be supported by the Official Notices under 37 C.F.R. § 1.104(d)(2) or otherwise.

Regarding this argument against all the rejections based on obviousness, the applicants have not identified a particular instance in which the Office Action includes an invocation of official notice, so no specific response to this argument is possible. The examiner is not aware of any invocation of official notice in the Office Action.

Regarding new claims 29 and 30, the applicants argue that new claims 29 and 30 respectively depend from claims 28 and 10, and are therefore allowable at least for the same reasons as their respective base claims.

In response to new claims 29 and 30, the rebuttal of the arguments against the rejection of claims 28 and 10 is stated above, and that rebuttal is incorporated here by reference as the rebuttal of this argument for the allowance of claims 29 and 30.

Summary

13. For all the foregoing reasons, the applicants' arguments against the rejection of claims 10-30 are not persuasive, and the rejection of claims 10-30 maintained.

Conclusion

14. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOHN F. MORTELL whose telephone number is (571)270-1873. The examiner can normally be reached on IFP.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel J. Wu can be reached on (571)272-2964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JM/

/Daniel Wu/
Supervisory Patent Examiner, Art Unit 2612